



Smart City Initiatives in Timisoara. Plans and Actions

Timisoara - Geographical Position



Facts

- population as of July 1st 2014 is **333.531** inhabitants
- The city's area is **129 km²**
- The number of cars as of 2012 is **108.029**,
 - while the number of goods vehicles is **11.791**.
- Real numbers are **MUCH** higher
- nominated for European Capital in 2021

Goals (City Hall)



- Our **goal** is
 - to consolidate Timisoara's profile as a dynamic and innovative economic center,
 - competitive at the European level,
 - in a multicultural and sustainable context,
 - in order to ensure a good quality of life for its population.
- Our main **objectives** are:
 - ensuring a sustainable economic development,
 - based on high-tech industry, telecommunication, informatics and high value-added services;
 - improving the technical infrastructure, so that in the near future it will be connected, complex and flexible;
 - achieving an ecological and attractive habitat.

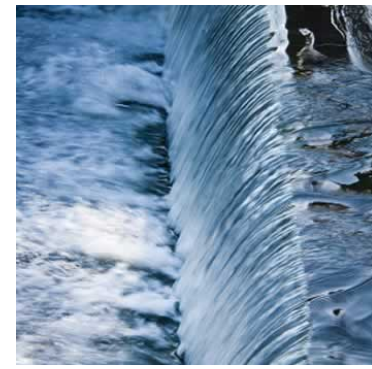
European Covenant of Mayors

- The City of Timisoara has been committed to the European Covenant of Mayors in 2010
 - to achieve and exceed the European Union's target of reducing carbon emissions by 20 % by 2020.
 - The revised version of the Sustainable Energy Action Plan was approved by the Local Council in 11.11.2014.



Renewable Energy

Hydroenergy Plant



- The Old Plant is 131 years old!
 - designed by Emil Szilard, one of the first in Europe (1st in RO)
- Hydroenergy is exploited by the Local Heating Company COLTERM
- Hydropower output was 1,370 MWh in 2014.



11.11.2015

Geothermal energy

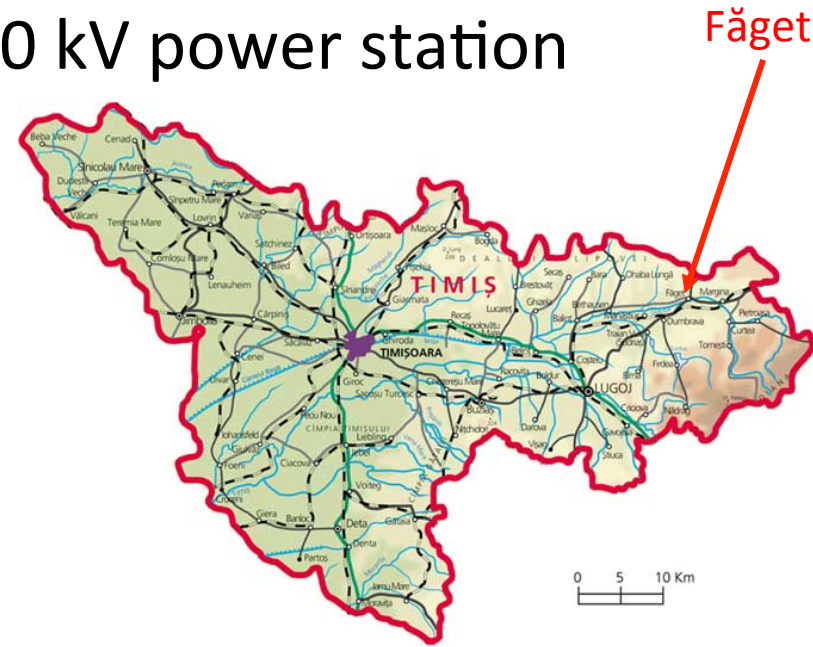
- Romania has the 3rd highest geothermal potential of European nations
 - with major potential locations on the Western Plain, where Timisoara is situated.



Solar Energy - Examp



- **Făget** 1 PV Project
- around 90 km far from Timisoara
- flat area, about 139 meters above sea level.
- Grid connection via a 20 – 110 kV power station
- Nominal Capacity: 6,6 MW

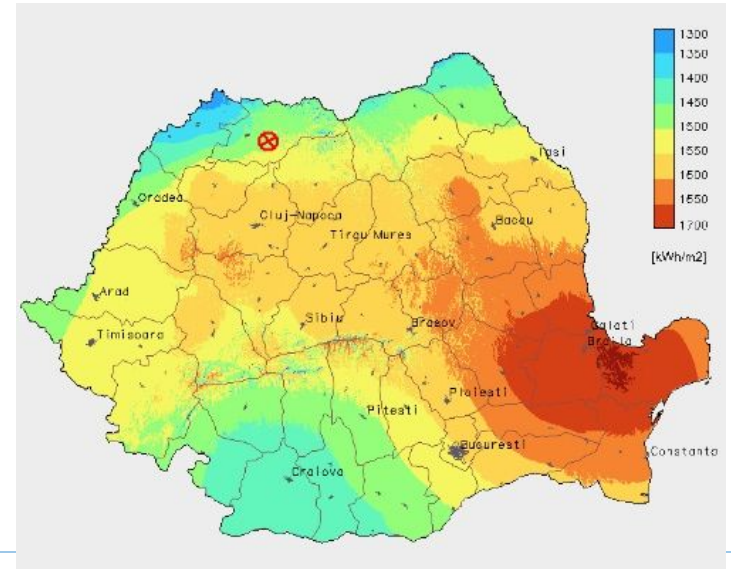


Solar Energy – Project Halted

- Covaci Solar Park, which will be one of the world's largest thin-film photovoltaic (PV) power systems, is being built on a 60-hectare (148-acre) plot of land to the north of Timisoara in Romania.
- The power plant will be a 35-megawatt solar power system using state-of-the-art thin-film technology.
- The installation is in the Timiș County in western Romania, on a 560-hectare (1,384-acre) plot of land.
- The investment amounts to Euro 180 million.

Green House Program

- Backed by the Government
- 1.300 Euro one time subsidies, for one house
- **Stopped** in 2014



Green Certificates

- a support mechanism for encouraging electricity production from RES (projected **38% in 2020**)
- applies to electricity generated from:
 - Hydro energy used in the power stations (< 10 MW);
 - Wind energy;
 - Solar energy;
 - Geothermal energy;
 - Biomass and Bio-liquids;
 - Waste fermentation gas;
 - Gas from the fermentation of sludge from used water cleaning plants



Smart City Actions

Building refurbishment



- In 2015 - 51 block of flats under reconstruction
- 10 million Euro investment (60% EU funded)



Smart Lighting

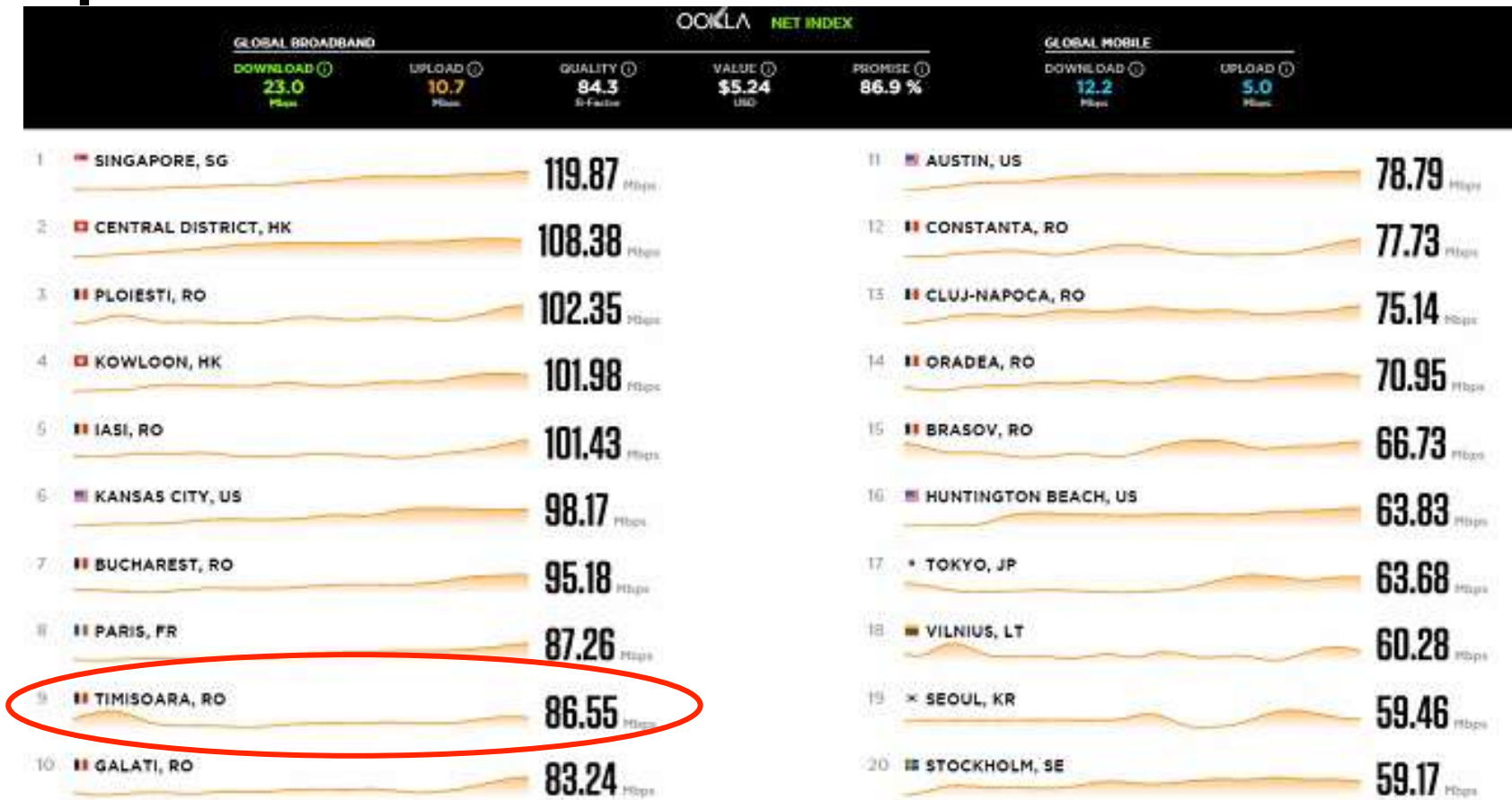
- Started in 2014, in Children's Park
- Up to 35% reduction in consumption
- Evolved in other several districts in the town



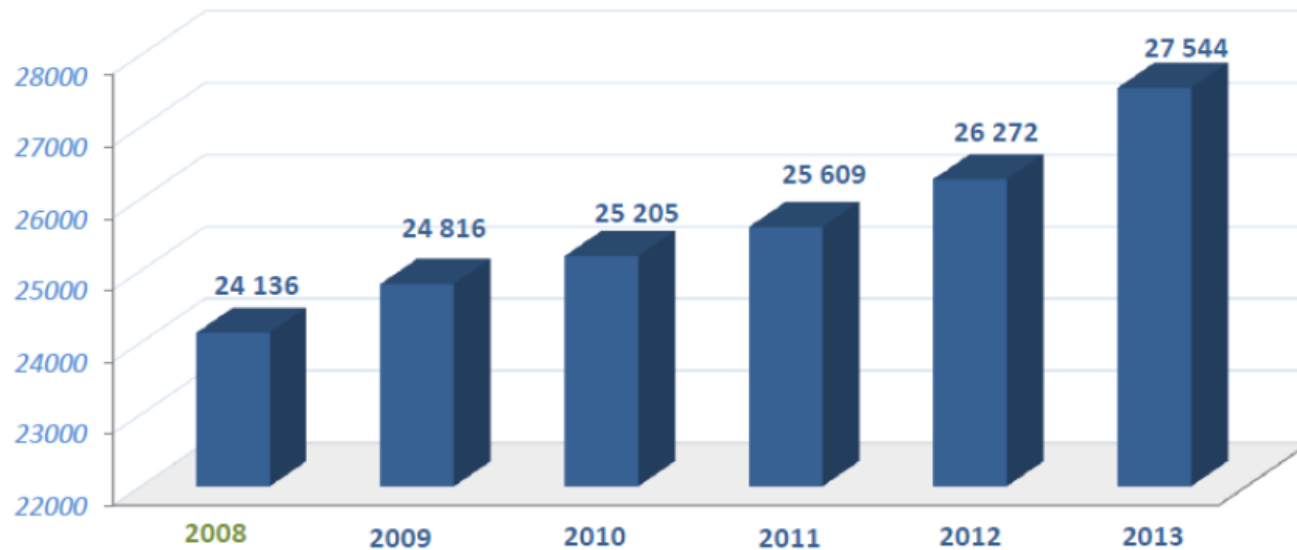
Excellence in Internet Speed

- according to [Ookla Net Index](#)
 - 9 cities in Romania are among the top 15 cities in the world
 - with the highest download speed of fixed broadband internet connections.
- Timisoara is ranked #9 with 86.55 Mbps average download speed
- There are several available offers rated at 1 Gbps!

Top 20 Worldwide Download Speed



No electric or hybrid cars registered in the records of the municipality





- In 2008 - the Baseline Emission Inventory year,
- the total energy consumption was 3,711,006 MWh,
- the corresponding CO₂ emission was 1,179,453 tones
 - 3.8 tones/capita – population 311,481 in 2008.
- The Monitoring Emission Inventories compiled till 2013, after a stationary tendency of,
 - the local picture shows an annual increase trend of CO₂ emission:
 - 4.0 tones/capita in 2009
 - 4.0 tones/capita in 2010
 - 4.1 tones/capita in 2011
 - 4.2 tones/capita in 2012
 - 4.3 tones/capita in 2013.

} partly due to the continued weak economic condition post-2009

(Almost) Free Bicycles

- 300 new bicycles
- 1hr free for RATT card owners



Water Road

- First water road in Romania (built 1728 – 1760)
- 114 km, from Timisoara to Titel (Serbia)
- Linked Timisoara to Rotterdam



Plans

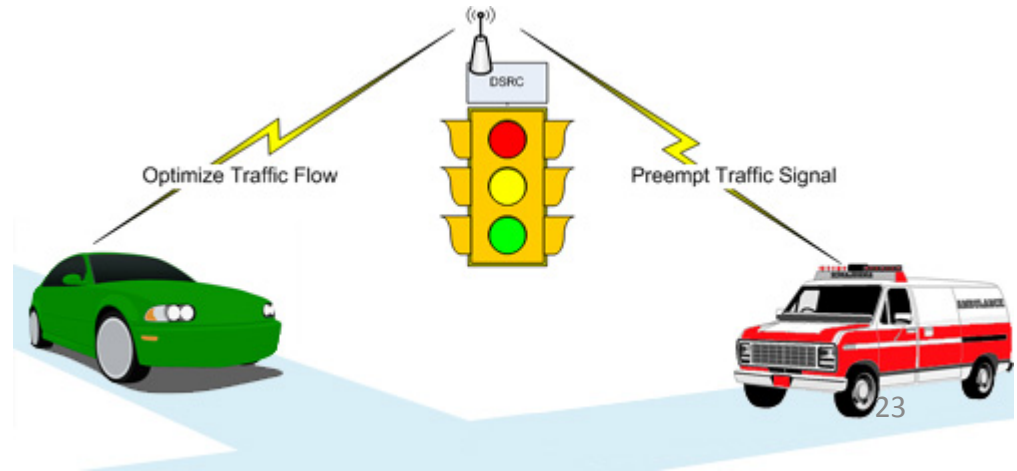
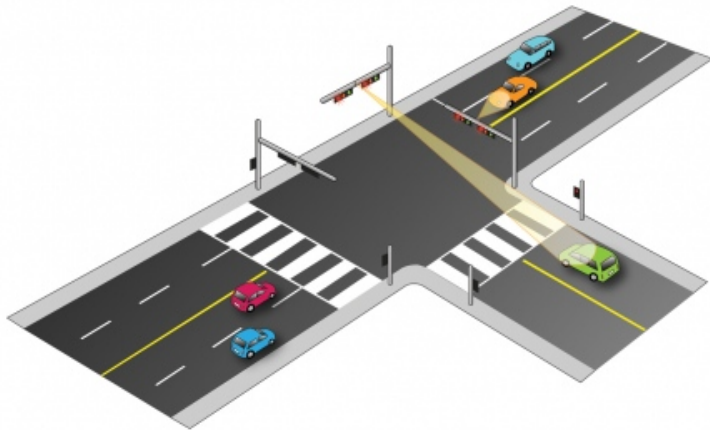
- Rehabilitation of Bega River Banks (80% ready)
- Bring 7 electrical boats, capable to transport 40 – 60 persons each
- Full 114km navigation is **prohibited** for the moment



Traffic Management



- 4 million Euro + VAT
- Dedicated control center
- 134 crossings will be linked
- 230 video cameras
- Started in April 2015, deadline – the end of 2015



Future & Plans

Openville

- 220 million Investment,
 - started in 2015, to be finished in 2018
- 594.000 m² (55.000 m² green park)
- Highest building in Romania (155 m, 27 floors)



OpenVille



Other Plans



- Underground **Subway**
- **Intermodal** public transport stations
- **SmartCity Control Center**
 - Smart Parking
 - Improving Traffic management
 - using camera and sensor input (finding alternate routing, traffic lights control)
 - Healthcare monitoring for aged people
 - Waste Management
- The City Hall intends to have its **own power and data network** in the district, to overcome issues due to a third party ownership
- **Vision 2030 Timisoara** – a sustainable concept for development of the infrastructure in Timisoara, approved by the Local Council in 2007

The Future:

- 1 million inhabitants
Metropolis
- Uniting Arad and Timisoara (the towns are 50 km away)
- Talks started in 2008, this October the two mayors (Robu, Falca) agreed on principles



Conclusions

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- **Strengths**

- Good commitment from Local Authorities
- Good results in fighting corruption
- Many on-going EU-funded projects

- Political Instability
- No holistic approach
- Indecision
- A lot of investments needed
- Citizens' reluctance

- **Weaknesses**

